



**AIRBORNE INFECTIOUS ISOLATION ROOM SEQUENCE OF OPERATION:**

**MODE OF OPERATION:**  
MODE OF OPERATION SHALL BE ISOLATION, UNOCCUPIED OR NORMAL AS DETERMINED BY A KEYED SWITCH IN THE ANTE ROOM.

**SUPPLY AIR TERMINAL:**  
IN THE ISOLATION AND NORMAL MODES, THE SPACE TEMPERATURE SETPOINT SHALL BE ADJUSTABLE AT THE ROOM TEMPERATURE SENSOR FROM A MINIMUM OF 60 DEGREES F TO A MAXIMUM OF 75 DEGREES F (ADJUSTABLE). THE COOLING SETPOINT SHALL BE EQUAL TO THE SPACE TEMPERATURE SETPOINT MINUS 1.0 DEGREE F (ADJUSTABLE) AND THE HEATING SETPOINT SHALL BE EQUAL TO THE SPACE TEMPERATURE SETPOINT PLUS 1.0 DEGREE F (ADJUSTABLE).  
IN THE UNOCCUPIED MODE, THE COOLING SETPOINT SHALL BE 80 DEGREES F (ADJUSTABLE) AND THE HEATING SETPOINT SHALL BE 90 DEGREES F (ADJUSTABLE).  
THE SUPPLY TERMINAL SHALL BE MODULATED BETWEEN MINIMUM AND MAXIMUM AIRFLOW SETPOINTS AS REQUIRED TO MAINTAIN ROOM TEMPERATURE AT COOLING SETPOINT. ON A DECREASE IN SPACE TEMPERATURE, THE TERMINAL UNIT DAMPER SHALL BE MODULATED AS REQUIRED TO MAINTAIN SUPPLY AIRFLOW AT MINIMUM AIRFLOW SETPOINT AND THE HEATING WATER CONTROL VALVE WILL BE MODULATED TO MAINTAIN THE SPACE AT THE HEATING SETPOINT.  
DURING THE ISOLATION MODE, THE MINIMUM AND MAXIMUM AIRFLOW SETPOINTS SHALL BE 12 AIR CHANGES PER HOUR.  
DURING THE NORMAL MODE THE MINIMUM AIRFLOW SETPOINT SHALL BE EQUAL TO 6 AIR CHANGES PER HOUR AND THE MAXIMUM AIRFLOW SETPOINT SHALL BE EQUAL TO 12 AIR CHANGES PER HOUR.  
DURING THE UNOCCUPIED MODE THE MINIMUM AIRFLOW SETPOINT SHALL BE EQUAL TO 2 AIR CHANGES PER HOUR AND THE MAXIMUM AIRFLOW SETPOINT SHALL BE EQUAL TO 6 AIR CHANGES PER HOUR (ADJUSTABLE).

**EXHAUST FAN:**  
THE EXHAUST FAN SHALL BE STARTED AND STOPPED BY THE EMS. THE SPEED OF THE FAN SHALL BE MODULATED BY THE VFD TO MAINTAIN THE EXHAUST DUCT STATIC PRESSURE AND 1.0 INCHES W.G. (ADJUSTABLE).

**TOILET EXHAUST TERMINAL:**  
THE TOILET EXHAUST TERMINAL SHALL MAINTAIN A CONSTANT AIRFLOW AS SHOWN ON THE DRAWINGS.

**ISOLATION ROOM EXHAUST TERMINAL:**  
IN THE ISOLATION MODE, THE ISOLATION ROOM EXHAUST TERMINAL SHALL BE MODULATED BETWEEN THE MINIMUM AND THE MAXIMUM AIR FLOW SETPOINTS AS REQUIRED TO MAINTAIN THE ISOLATION ROOM NEGATIVE RELATIVE TO THE ANTE ROOM BY 0.01 INCHES W.G. (ADJUSTABLE).  
IN THE NORMAL AND UNOCCUPIED MODE, THE ISOLATION ROOM EXHAUST TERMINAL SHALL BE MODULATED BETWEEN THE MINIMUM AND THE MAXIMUM AIR FLOW SETPOINTS AS REQUIRED TO MAINTAIN THE ISOLATION ROOM NEUTRAL RELATIVE TO THE ANTE ROOM.

**ANTE ROOM EXHAUST TERMINAL:**  
IN THE ISOLATION MODE, THE ANTE ROOM EXHAUST TERMINAL SHALL BE MODULATED BETWEEN THE MINIMUM AND THE MAXIMUM AIR FLOW SETPOINTS AS REQUIRED TO MAINTAIN THE ANTE ROOM NEGATIVE RELATIVE TO THE PATIENT CORRIDOR BY 0.01 INCHES W.G. (ADJUSTABLE).  
IN THE NORMAL AND UNOCCUPIED MODE, THE ANTE ROOM EXHAUST TERMINAL SHALL BE MODULATED BETWEEN THE MINIMUM AND THE MAXIMUM AIR FLOW SETPOINTS AS REQUIRED TO MAINTAIN THE ANTE ROOM NEUTRAL RELATIVE TO THE PATIENT CORRIDOR.

**KEYED NOTES:**

- 1 POWER WIRING BY ELECTRICAL.
- 2 VARIABLE FREQUENCY DRIVE FURNISHED BY ATC CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. REFER TO VARIABLE FREQUENCY DRIVE SCHEDULE AND CONTROL DETAIL C.
- 3 ELECTRONIC DAMPER ACTUATOR FURNISHED AND INSTALLED BY ATC CONTRACTOR.
- 4 24 VAC CONTROL TRANSFORMER FURNISHED AND INSTALLED BY ATC CONTRACTOR.
- 5 SUPPLY AIR TERMINAL WITH REHEAT COIL AND AVERAGING VELOCITY SENSOR FURNISHED AND INSTALLED BY SHEETMETAL.
- 6 HEATING WATER CONTROL VALVE WITH ELECTRONIC MODULATING ACTUATOR FURNISHED BY ATC CONTRACTOR.
- 7 ISOLATION ROOM DDC PANEL FURNISHED AND INSTALLED BY ATC CONTRACTOR.
- 8 POLY TUBING FURNISHED AND INSTALLED BY ATC CONTRACTOR.
- 9 CAPPED TEES FURNISHED AND INSTALLED BY ATC CONTRACTOR.
- 10 ROOM THERMOSTAT FURNISHED AND INSTALLED BY ATC CONTRACTOR.
- 11 EXHAUST AIR TERMINAL WITH ORIFICE RING FLOW SENSOR FURNISHED AND INSTALLED BY SHEETMETAL CONTRACTOR.
- 12 SUPPLY AIR TEMPERATURE SENSOR FURNISHED AND INSTALLED BY ATC CONTRACTOR.
- 13 KEYED SWITCH (NORMAL ISOLATION UNOCCUPIED) FURNISHED AND INSTALLED BY ATC CONTRACTOR.
- 14 DIFFERENTIAL PRESSURE TRANSMITTER FURNISHED AND INSTALLED BY ATC CONTRACTOR.
- 15 DAMPER AND ACTUATOR FURNISHED WITH EXHAUST FAN. CONTROL WIRING FROM VFD TO DAMPER ACTUATOR SHALL BE FURNISHED AND INSTALLED BY ATC CONTRACTOR.
- 16 DIFFERENTIAL PRESSURE TRANSMITTER WITH DIGITAL DISPLAY FURNISHED AND INSTALLED BY ATC CONTRACTOR.

1 AIRBORNE INFECTIOUS ISOLATION ROOM: TYPICAL FOR ROOMS IF-132 AND 1F-111  
NOT TO SCALE

ISOLATION ROOM 1F-111 CONTROLS